

Research Note 84-52

THE ANTECEDENTS AND CONSEQUENCES OF PERFORMANCE
FEEDBACK IN ORGANIZATIONAL SETTINGS

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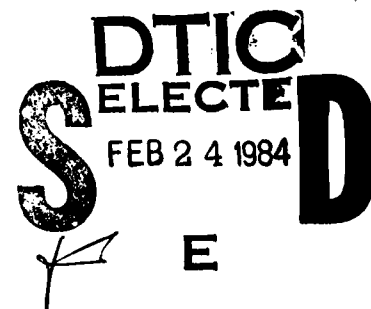
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The research described herein could be broadly classified as dealing with problems associated with the perception of work environments. Within this broad area the major focus of the research was upon the critical role played by feedback in work environments. In this regard, four major phases of research were conducted. The first phase involved an extensive review of the literature on performance feedback. This was followed by the second and third phase which involved the development of an instrument to measure the feedback environment. (continued)		

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Research with this instrument culminated the third phase of the research. Concomitant with the second and third phases, factors affecting a supervisor's willingness to give feedback to subordinates was investigated and is described as the fourth phase of this research. Finally, other research conducted on the grant which did not fit into the four phases just described appears in the final section of this report. Also included is an appendix which lists the articles, papers, technical reports, etc., which were supported by the grant. This report is the final report of a 1977-1978 series entitled "Motivational Consequences of Perceived Job Environments: The Critical Role of Feedback in Initial Work Experience."

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ANTECEDENTS AND CONSEQUENCES OF PERFORMANCE
FEEDBACK IN ORGANIZATIONAL SETTINGS;
A FINAL REPORT

INTRODUCTION

Recently there has been considerable interest in the effects of work settings on individuals' motivation to contribute to the goals of the organizations. Two general assumptions are made by those who look to the work setting for major influences upon work behavior. First, it is assumed that work behavior is a complex interaction between work setting characteristics and characteristics of the individual. It is naive to expect that the same work environment will affect all individuals in the same way. Therefore, any relatively complete understanding of individual behavior in organizations must take into account both situational and individual factors as they influence work behavior.

The second major assumption of most, but not all, of those concerned with behavior in organizations, is that humans are strongly influenced by their cognitions. People think and these thoughts influence how they respond. In fact, some of these thoughts, specifically behavior intentions, are the most immediate precursors of behavior (Locke, 1968). The acceptance of this cognitive view is widespread (Naylor, Pritchard and Ilgen, in press) although, as Locke (1977) points out, it is not shared by those who hold to a strict behavior modification view.

The research undertaken on this grant accepted the interactionist assumption mentioned above and focused its attention upon the cognitive beliefs of employees. In particular, it was concerned with the perceptions held by organizational members of the behaviors needed for effective performance and their evaluation of their own behavior. It was argued that the critical element running through most of the major theoretical positions which have dealt with perceptions of work role requirements was the nature and quality of feedback available to organizational members. Therefore, we shall first consider three major orientations toward work motivation which focus their attention upon the work environment and then consider the role feedback plays in integrating these three approaches.

Job Design. Attempts to influence productivity and alienation simultaneously have frequently turned to the redesign of work (Hackman and Oldham, 1976). In most of these job design studies, the focus has been on alienation from work. It is assumed that decreased alienation will manifest itself in increased productivity. The theoretical underpinnings of this view of work design are based in Maslow's (1954) higher order needs as espoused by Herzberg (Herzberg, Mausner, and Snyderman, 1959; Herzberg, 1966), and others. Jobs are assumed to possess a given potential for arousing and meeting

higher order needs (Hackman and Oldham, 1976). As a result, jobs can be redesigned or "enriched" to meet the higher order needs of job incumbents and therefore reduce their alienation from work (Ford, 1969; Maher, 1971).

Although job enrichment has been aptly criticized for its global assumptions about the nature of man (Hulin and Blood, 1968; Hulin, 1971; Hackman and Lawler, 1971), it is reasonable to conclude that a sizeable proportion of the workforce is underutilized and therefore would benefit from more enriched jobs (Porter, Lawler and Hackman, 1975). Thus, one fruitful approach to work motivation is to alter the job in some fashion so that it is perceived by the individual as being more capable of satisfying what Maslow has termed higher order needs.

Expectancy Theory. The job setting also is a central concern of those who view man as a decision-maker. Most frequently termed expectancy theory, this view of motivation concentrates on characteristics of the work environment surrounding an individual's performance (Lawler and Porter, 1968; Mitchell, 1974; Vroom, 1964). Two central job characteristics are said to motivate the individual to perform well. The first is his or her perception about the relationship between the amount of effort put into work and performance. The second is a perception about the relationship between performance on the job and the attainment of valued rewards. Individuals should strive to perform highly when they believe working hard is necessary and sufficient for higher performance and when they believe high per-

formance will lead to more valued rewards than will other levels of performance. According to this view, work settings should provide information about the difficulty level of the job (or the job complexity) and the association between performance and rewards. Of particular note, is that expectancy theory makes no general assumptions about the need structure of job incumbents as is done by job enrichment enthusiasts. According to expectancy theory, each individual's needs can be viewed idiosyncratically as they influence the value of rewards to the individual. Nevertheless, from a practical standpoint, some needs are common within specifiable samples of workers so that some generalizations across people can be made.

Role Theory. Role theory presents a third focus upon the nature of the job and its effect on work motivation (Katz and Kahn, 1966, 1978; Oeser and O'Brien, 1967). The work role is that set of behaviors required of the individual who holds a given position (or job) to which the role is assigned. For example, the job of department manager in a large department store may have several work roles attached to it -- ordering merchandise, supervising clerks, selling to customers, etc. Work behavior, from the standpoint of roles, is concerned with describing those behaviors in which the individual will engage. The focus is not so much upon the amount of effort exerted toward a given level of performance as it is on the direction of the effort -- e.g., what percent of time does he or she spend looking through order books,

directing the behavior of the clerks, or selling to customers.

Integration. As has been emphasized, job design theory, expectancy theory, and role theory all have their primary emphasis on the specific job environment as the source of motivation. They all recognize individual differences and allow mechanisms for these to enter the motivational process. However, for all three, the job setting is treated more extensively than are individual differences, and the job is seen as the focus of change when attempts are made to alter the motivational dispositions of incumbents.

The three models also share the assumption that man is a cognitive being and that actions in the job environment are a function of beliefs about what is involved in the job and what will result when one interacts (behaves) in that job. Prior to behaving on the job, the incumbent consciously decides what behaviors to do and how much effort or time to put into these behaviors. Thus, although the job environment is central to the three models discussed, the primary focus is on the perceived job environment rather than the actual one. The actual job is used as the stimulus which leads to the individual's perception of that job. Furthermore, to change the perceived job in an attempt to enhance work motivation, a change is made in the actual job. The change agent assumes that the actual change will lead to relatively similar changes in job perceptions.

The job environment transmits to the job incumbent three categories of information about the job. First, there are expected role behaviors. These are the actual behaviors required of the specific role incumbent in that job. Once the individual behaves, this behavior acts as feedback to those who hold the expected behaviors, and therefore their expectations are constantly being altered by the feedback loop from the evaluation of the role incumbent's behavior in the job. This feedback process allows for the expected role behaviors to be altered by a consideration of the specific job incumbent as described by Graen's (1976) role-making model. His major emphasis is that roles are not the same for all but are altered according to various characteristics of the person who holds the position at any given time.

Second, job environments convey a certain motivational potential to job incumbents. The motivational potential of the job refers to those job characteristics which impact on the higher order needs of job incumbents. Those job dimensions of major concern are those outlined by Hackman and his associates (Hackman and Oldham, 1976). Specifically, (1) the meaningfulness of the task, (2) the amount of autonomy on the task and (3) performance feedback are transmitted to the individual from his or her interaction with the job to form his or her perception of these three task elements.

The final set of information fed to the individual is composed of the expectancies and instrumentalities which exist in the job environment between effort and performance and between performance and rewards. Of the two, expectancies and instrumentalities, the former are much more dependent upon the job incumbent's characteristics than are the latter. Nevertheless, both are transmitted to the individual, and, based upon his or her assessment of them, they influence his or her decision concerning further behaviors.

All three of these features emphasize the importance of the role of feedback in the motivational process. It should be noted that feedback is used here in a very broad sense. It is any information fed to the individual about the behavior he or she is to do or did do on the job.

All three major views of the job environment demand accurate feedback. From the standpoint of the motivational potential of the task environment, feedback fosters knowledge of results about how the individual is performing. According to Hackman and Oldham (1976), it is through feedback that the individuals learn how they performed. This knowledge is a prerequisite for experiencing the psychological state of positive affect. For, if they do well on a task which is meaningful to them and is one they can feel that good performance was due to their own

actions, they will experience a degree of satisfaction which will be rewarding to them. According to the theory, they will then desire to continue to perform well and will continue to reward themselves for their performance. They use the feedback, in a sense, to activate this internally motivated system.

Despite the crucial role played by feedback, this dimension has been the one on which there is the least agreement on the extent to which feedback is present in the job. Both Lawler and Hackman (1971) and Hackman and Oldham (1975) were unable to find much agreement between the job incumbent's rating of the degree to which he or she received feedback and the rating of the supervisors or an outside observer. Correlations between incumbent's and supervisor's ratings were .09 and .07 for Lawler and Hackman (1971) and Hackman and Oldham (1975) respectively. For incumbents with outside observers, the correlations were -.22 and -.14.

It must be concluded that although feedback may be central to the model, the job incumbents perceive the amount of feedback present very differently than do their supervisors and outside observers.. Therefore, if we are to suggest changes in the job to enhance its motivational potential, it is essential that we understand the sources of the job incumbent's feedback perceptions in order to make changes which will produce a job that will lead to a greater possibility for motivating him or her.

Performance feedback is no less central to Expectancy Theory. Two of the three central components of the model rely

upon an individual's perception of his or her own performance. The first component deals with the individual's expectancy that a given level of effort will produce a given performance level on the job. Without an accurate perception of his or her performance level, he or she is left with few objective cues on which to base an expectancy estimate. To the extent that this is true, expectancy estimates become extremely ideosyncratic and independent of the job environment. Under such conditions, intervention strategies aimed at increasing motivation through the manipulation of expectancies are limited by the extent to which job incumbents do not rely upon cues from their job to estimate effort-performance contingencies.

Feedback also impacts upon instrumentalities. Recall these are links between performance levels and the outcomes which the job incumbent may or may not accrue for performing at a certain level. Two types of information must be communicated to the individual in order to form accurate perceptions of instrumentalities. First, the person must have knowledge of his or her own performance. This comes from typical sources of performance feedback already discussed. Second, the contingencies between performance and rewards must be communicated to him or her. The data suggest that job settings do convey the latter information to the individual and that knowledge about the performance-outcome links does influence job performance (see Dachler and Mobley,

1973; Graen, 1969; Mitchell, 1974; and Peters, 1977). Yet the data seem to indicate that the information needed to form instrumentalities is better communicated by company policy (Graen, 1969) than by supervisors (Ilgen, Campbell, Peters, and Fisher, 1975). Regardless of the source, it is obvious that the individual must process feedback information from his or her job environment to form instrumentalities. To the extent that he or she does not form perceptions of instrumentalities in line with those the organization believes exist, the effectiveness of the reward system will be reduced and the possibility of constructive intervention for motivational purposes will be limited.

Finally, Role Behaviors also rely heavily upon feedback to influence the behavior of job incumbents. Here the feedback is more specific than discussed by the other two positions. Typically, role theorists view the job incumbent as interacting with other individuals who observe his or her behavior and react to it. Katz and Fahn (1966, 1978) termed this process a role episode. The job incumbent behaves and this behavior is received (observed) by those persons in his or her environment who have some stake in his or her behavior. Typically this has been his or her supervisor, although it can and does include co-workers as well as those not on the job -- e.g., a spouse. These relevant observers process what they see and they send the role behavior expected to the person.

It is this sending of expected roles that is the feedback for the job incumbent about the adequacy of role behavior. He or she then considers the expected role, performs the act which begins the cycle all over again. To the extent that the job incumbent is unclear as to what role is being sent (i. e., unclear about what is expected), behavior is likely not to be in line with what is needed for appropriate role behavior. To the extent that this is true, it has been found that the relationship between the individual's expenditure of effort and high performance breaks down (Lawler and Suttle, 1973; Porter and Lawler, 1967; Terborg, 1977). The individual experiences role ambiguity and role conflict (Green and Organ, 1973; Rizzo, House, and Lirtzman, 1970; Ilgen, et al., 1975), and the individual is less satisfied with various elements of his or her job (Ilgen, et al., 1975). Therefore, it must be concluded that in order for role processes to impact on performance in a desirable fashion the job incumbent must accurately perceive the sent role. Yet, the low agreement between supervisors and subordinates as to what are the appropriate role behaviors points out the need to understand the factors behind accurate feedback regarding role behavior.

OVERVIEW OF REPORT

The remainder of the report describes five phases of research. The first four focused specifically on performance appraisal. The fifth was conducted concomitantly with the other four and dealt

with broader issues than simply feedback. Since much of the research is reported in detail in technical reports or articles, we shall only briefly summarize research in each phase referring the reader to the relevant publications.

PHASES OF RESEARCH

Phase I: Literature Review of Feedback

Before undertaking research on feedback, a major review of the literature was undertaken and reported by Ilgen, Fisher, and Taylor, 1977. This review covered two major bodies of literature. The first and most extensive developed within the field of experimental psychology. Early work in this area explored the effects of knowledge of results (KR) on performance by varying such factors as the amount of specificity or KR in highly controlled settings. The second major set of literature came from the organizational behavior area which tended to see feedback as a necessary condition for the learning of roles, for meeting higher order needs of self-fulfillment, and as a central feature in the goal-setting process. In general the approach of experimental psychology was heavily grounded in precise experimentation which often tended to be quite sterile and void of theoretical development and to some extent generalizability to the day-to-day functioning of people in organizations. The organizational behavior literature,

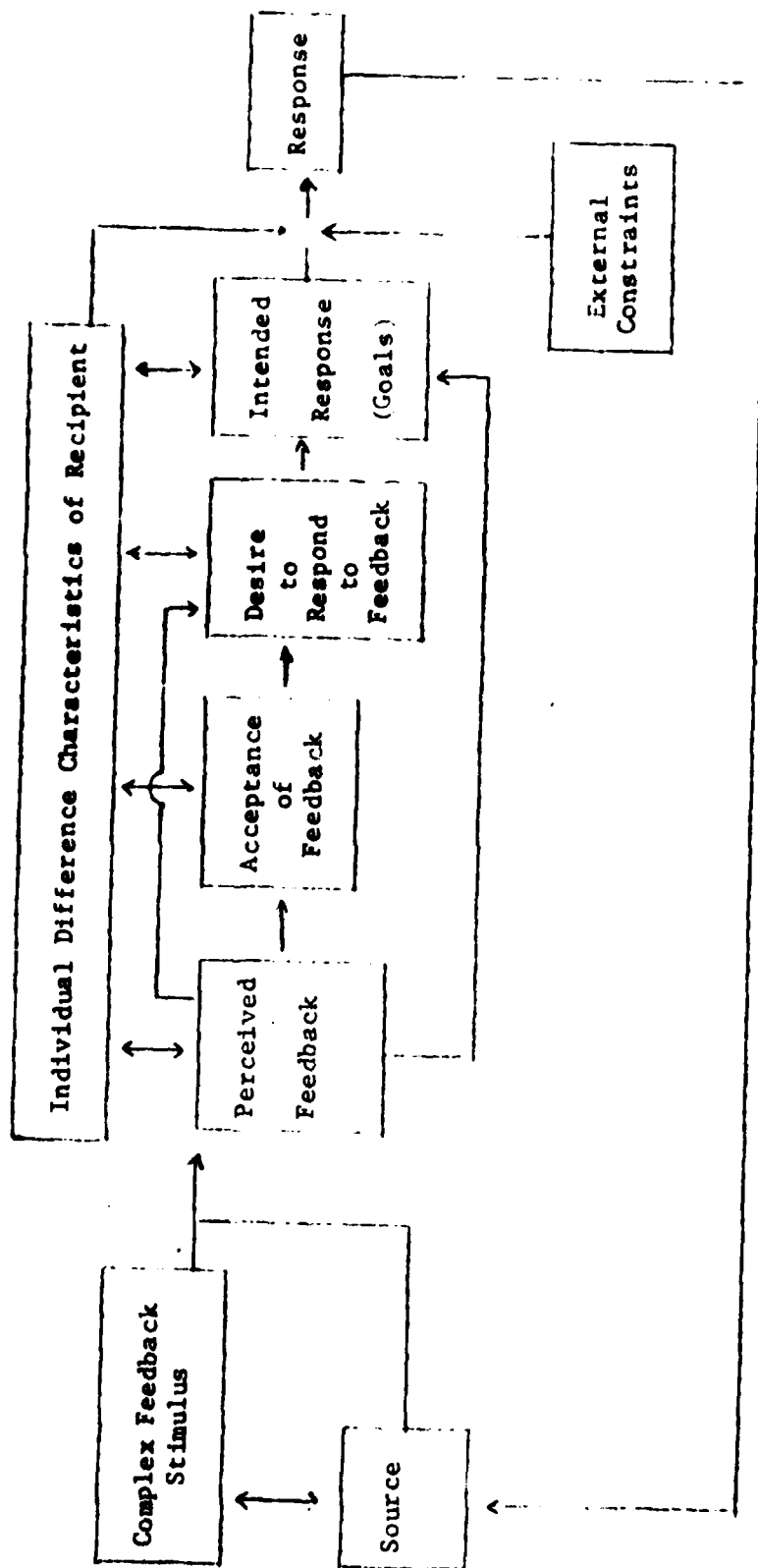
on the other hand, was rich in theory with many references to behavior in organizations. However, it usually dealt with vague generalities about feedback which lacked the data base needed on which to build confidence in the accuracy of statements. As a result each area's strength was the other's weakness, yet neither area showed much awareness of the other. Our review attempted to fill this void.

Figure 1 represents the model around which the review was organized. It was concluded that the elements represented on the left of the model represented the basic inputs from feedback to the individual. The individual then perceived these inputs, processed the information based upon the information itself and upon characteristics of the person himself or herself, then responded to it in some fashion. The report focused upon each juncture in the process as well as upon stimulus and individual differences affecting the response to feedback. For a detailed elaboration of the model see Ilgen, Fisher, and Taylor (1977).

Phase II: Development of the Feedback Instrument

The review identified five major dimensions of feedback and five sources of feedback. The dimensions were (1) the timing, (2) specificity, (3) frequency, (4) the interpersonal manner of the source while giving feedback, and (5) whether or not the feedback was given publicly or privately. Sources of feedback which appeared to be important were (1) the supervisor, (2) co-workers,

FIGURE 1 Model of the Effects of Feedback on Responses of Individuals



(3) subordinates, (4) other individuals who were not part of the immediate work group such as customers, and (5) the individual himself or herself. A sixth source obviously important in work settings was the task itself. However, in developing an instrument to measure feedback it became extremely difficult to separate the task from the individual himself or herself in terms of the wording of the items. In spite of the fact that conceptually the two sources are very distinct, it was not possible to word items which were unambiguous to the employees who responded to them.

Although the task provides the necessary conditions for feedback, it is not sufficient. Only if the individual can interpret the information from the task and then use that information as feedback does the information from the task affect the employee on it. Therefore, all items were worded to emphasize the person, although in many instances the task was a given. For example, an item might say, "On my job, when I do a good job I can tell right away." This item was considered to measure the timing of positive feedback from the employee himself or herself. However, it should be noted that if the employee agrees with the item, information is gained about both the job and the self. If he/she disagrees with it, we know something about the timing of feedback from the self but we do not know if it is due to the inability of the individual to read cues from the task or the lack of such cues from the task.

Nevertheless, given the information value of positive responses and the fact that the formula was understandable to employees, it was decided to use only the self.

An instrument was developed to measure the aspects of feedback just described. It was piloted in an automobile manufacturing plant with a small group of supervisors as well as with college students who had held summer jobs. The pilot research was used to clarify items and to eliminate from or add items to specific subscales.

The instrument was then administered to three samples in order to evaluate its psychometric properties. One sample consisted of a stratified random sample of 100 employees from several plants of a large manufacturing company. They were selected in pairs in order to represent 50 work groups. For 50 of the individuals, one from each work group, their immediate supervisor filled out the feedback questionnaire describing the feedback as he/she perceived it for the subordinate. Therefore, a second sample (of which 50 persons were also in the first sample) consisted of supervisor-subordinate pairs for investigating the inter-rate agreement on the feedback scales. Finally, a sample of 42 administrative and clerical personnel employed by Purdue University completed the scale on two separate occasions one month apart. Thus, the three samples allowed for evaluations of the scale in

terms of internal-consistency, inter-rater and test-retest reliability. The results of these analyses are reported in Ilgen, Matte, Dugoni, Fisher, and Taylor (1978). In general, the results showed that all of the dimensions possessed adequate psychometric properties when general descriptions of the dimensions were considered. When specific dimensions-by-sign-by-source subscales were considered (e.g., Specific Positive feedback from superiors), the quality of the subscales varied. In some cases they were very good on most of the criteria and in others cases they were not. The only area in which the instrument consistently failed to provide positive results was that of agreement between supervisors and subordinates. These two sets of observers of the feedback simply did not agree. The report discusses this disagreement at length.

Phase III: Correlates of Feedback Dimensions

In the industrial sample (N=100) in which employees described their feedback, they responded to several items designed to measure several of the concepts outlined in Figure 1. They also completed a job satisfaction questionnaire and one designed to measure their commitment to the organization. Finally, the supervisor of each participant noted his/her performance on several items which were combined for an overall performance rating.

Responses to these additional items and measures were then correlated with descriptions of the feedback provided both by

the individual job incumbents and by their supervisors. Technical report number three by Ilgen, Dugoni, Matte, Fisher, and Taylor (1978) describes the results of this exploratory study.

Phase IV: Feedback from Superiors

Concomitantly with Phases IV and V a separate research project was conducted by Fisher (1978a and 1978b) to investigate the process by which supervisors give feedback. The review clearly indicated that supervisors were extremely important sources of feedback. This research was undertaken to better understand the supervisor as a source of feedback. The superior seems to be the most important in most work settings (Greller and Herold, 1975). Unfortunately, the superior may often be a poor source of feedback. Therefore, one project undertaken on this grant was a review of the literature relevant to the superior as a source of feedback. The review was followed by a laboratory study investigating some of the problems that superiors have in giving feedback.

The literature review suggested that superiors were quite reluctant to give accurate negative feedback to subordinates who were deserving of such feedback. The reluctance seemed to take three forms. The first was simply avoiding giving any feedback at all. The second was delaying giving feedback -- putting it off for as long as possible. This may be a surrogate for outright avoidance of giving feedback in organizations which

require some form of feedback to be given. The third manifestation of the reluctance to give negative feedback was distorting the feedback upward. Telling a poor performer that he or she was performing at an average or above average level would be a case of distorting feedback.

There was very little hard data available to either document or refute the existence of these problems in giving negative feedback. Most of the articles which did suggest that there was a reluctance to give feedback were non-empirical in nature and written by individuals who had informally observed the performance appraisal and feedback process in organizations. Therefore, a study was undertaken which would (1) discover if delay and distortion in giving negative feedback did occur, and (2) investigate some of the reasons for their occurrence. Outright avoidance of giving feedback was not investigated in the present study. The following results were expected:

1. Upward distortion of feedback would occur when subordinate performance was low.
2. Delay in giving feedback would be greater when subordinate performance was low than when subordinate performance was high.

Several secondary hypotheses about the causes and correlates of delay and distortion were also tested.

A research laboratory study was run, using a 2 by 2 design. The factors were (1) level of subordinate performance (medium high and medium low), and (2) feedback condition (superiors were either required to give feedback once or not allowed

to give feedback). Cell sizes varied from 40 to 43.

Subjects were obtained from a psychology subject pool and were run one at a time. Subjects took the role of a manager with one subordinate. The subordinate, unbeknown to the manager, was actually a confederate of the experimenter. The subordinate performed at one of the two levels mentioned above. The manager (subject) checked and recorded the subordinate's performance. At a time of his/her own choosing, the manager filled out three scales rating his/her subordinate's overall performance. In the feedback condition, the manager then showed the ratings to his/her subordinate and discussed them with him/her. In the no feedback condition, the subordinate never saw the ratings or received feedback of any kind.

Subjects had been told that nine units of work would be completed. Therefore, most subjects (except those who delayed until after the ninth unit) expected work on the task to continue after they gave feedback and/or evaluated their subordinate. However, once the ratings were made and/or feedback given, work on the task ceased and the subject filled out a questionnaire.

Delay was measured as the number of units of work the superior monitored before deciding to evaluate and/or give feedback. Distortion was the mean difference between performance ratings given in the no feedback condition and ratings given in the feedback condition. If the latter were significantly higher than the

former, then upward distortion was said to have occurred. Several other variables used for testing the secondary hypotheses were measured by questionnaire.

Results and conclusions: a significant amount of upward distortion was found when subordinate performance was medium low, as predicted. A significant effect for delaying giving feedback was found, but it was in the direction opposite to that predicted. Superiors of low performing subordinates delayed a significantly shorter time than did superiors of high performing subordinates. This result was explained by additional data which indicated that superiors of low performing subordinates gave feedback sooner because they wanted their subordinates to have time to improve their task performance before the end of the experiment.

The results were discussed in terms of their generalizability to organizational settings. It was concluded that the artificiality of the laboratory setting tended to reduce the amount of distortion in giving feedback observed in this study. Since a significant amount of distortion nevertheless occurred, it was considered likely that an even greater amount would occur in actual organizations.

The delay effect seemed to be a result of the very short-term nature of the study. It was suggested that negative feedback may be delayed longer than positive feedback in organizations, where the time limits on improvements in subordinate performance

are much longer and less clear.

Further research on the existence and causes of distortion, delay, and avoidance in giving feedback in organizations was recommended. For further details see Fisher (1978b).

Phase V: Other Research

Other research on the grant tended to focus on aspects other than feedback per se that influenced perceptions of job or task demand. In some cases these focused on the formation of roles for present jobs, and in other cases they dealt with information about future roles - that is with jobs or tasks the individuals would hold at some time in the future. Each of these research studies is described briefly below and references are given for more detailed explanations.

A. Role Perceptions. Nielsen (1977) investigated the effects of several definitions of roles on the satisfaction and performance of nurses. Focal nurses described their roles both in terms of what they did and what they felt they should do. In addition, a selected peer and the immediate supervisor described the role of the focal nurse. Discrepancy scores were then created by comparing the focal nurse's description of her role to those of peers and supervisors. The focus of the research was on the sources of discrepancies as well as the effects of discrepancies on affective responses such as experienced role conflict and ambiguity and on performance.

B. Job Preview Information. Dugoni, (Dugoni, 1978; Dugoni and Ilgen, 1978; Ilgen and Dugoni, 1977) looked at the effects of giving realistic job preview information on the beliefs of new employees, their satisfaction, and their willingness to stay with the organization. Research on organizational entry and early job experiences has shown that new employees who receive realistic information about an organization prior to their entry into it tend to have lower turnover than those who receive positively-biased information of the type usually given by organizations. The presentation of a balance of positive and negative information to job applicants has been termed "realistic job previews (RJPs)" (Wanous, 1973). Although many hypotheses have been put forth for why RJPs work, previous research has not directly examined the possible explanations. The evidence is quite convincing that RJP's used as an orientation technique can result in a significant lowering of turnover. But, what is it that RJP's influence which in turn influence turnover? Is there an underlying process, and, if there is, how does it work?

The study of Dugoni investigated three possible psychological processes underlying the use of RJPs in a field experiment. These three processes were (1) lowered (more realistic) expectations and increased job satisfaction, (2) improved ability to cope with unpleasant job circumstances, and (3) the creation of a perceptual set of greater openness and honesty within the company.

Material for the RJP orientation program consisted mainly of the data from a survey of current employees. These data were "fed forward" to the prospective employees with specific examples of critical incidents representative of the major areas of the survey (customer relations, co-workers, supervisors, hours, duties). Job expectations were measured in a post-orientation questionnaire. Job perceptions, satisfaction, coping, and climate were measured by questionnaires given two months after the new employees began working. The groups which received the RJP's set significantly lower expectations than the control group. Further, the RJP group's perceptions were more consistent with their expectations whereas the control group found their job to deliver significantly less than they had expected. The RJP group had 6% lower turnover at the end of 6 months and this difference was marginally significant ($p \leq 10$).

However, there were no significant differences between groups on the job satisfaction, coping, or climate measures. Further examination of the coping measure revealed that the experimental group reported encountering significantly fewer problem situations. Since one would expect that people working on the same job in the same setting (as the RJP and control groups were) would encounter the same types of situations, this result was unexpected. It suggested the possibility that the employees who had received a realistic preview knew what to expect on the job and did not view some of the situations as problems and therefore remembered them as occurring less frequently.

An additional unexpected finding is worth noting. Although the overall expectations of the RJP groups were lowered, an examination of the subsets of expectations revealed one exception. Expectations about supervision were raised not lowered. This result was unexpected because the orientation had pointed out both positive and negative events related to supervisors in the same way the other topics of the survey were presented.

It was concluded that when the employees received negative information about the company from company personnel it may have seemed "out of character" compared to what they expected, and they may therefore have formed a new image of company personnel in general as being very concerned for employees as evidenced by the orientation program. This may have generalized to their expectations about their own supervisor who would have been seen as the company representative at their level. It was suggested, therefore, that the future use of RJP s be accompanied by a thorough assessment of the actual job environment to assure that the previews are truly realistic. Since the use of RJP s may inadvertently inflate expectations about climate as in the case of supervisors, it may also be useful to combine the use of RJP s with a program familiarizing supervisors with the orientation process and helping them to be more aware of the special needs of new employees.

The well-entrenched hypothesis that RJP s increase satisfaction by improving the match between what is expected and what

is experienced was clearly not supported by this research. This was surprising given the wide-spread acceptance of the hypothesis (c. f. Porter and Steers, 1973; Wanous, 1977). The results of this study led us to suggest that RJP s will influence satisfaction with any given job facet only under conditions that (1) alter the individual's beliefs or values about what are desirable levels of the outcome in question, or (2) alter the individual's perception of the job characteristics through the creation of a perceptual set. See Technical Report Number 5 for a more thorough treatment of these topics.

C. Career Choices and Changes. A longitudinal study was begun which investigated the change in commitment to a career as a function of the information provided about the career over time and decisions made about acceptance into the career. Pre-pharmacy students were assessed at the beginning of the fall semester as to their knowledge about pharmacy careers and about other related careers in business, science, and helping careers related to health-care. Information about pharmacy was presented to the students over a semester which should have made it possible for them to form more realistic perceptions about the roles that could be expected for those who have degrees in pharmacy. Furthermore, after approximately seven months in the pre-pharmacy program, decisions are made as to who is and is not admitted to the school as a pharmacy student. Only fifty percent of the pre-pharmacy students are admitted to the pharmacy program. The focus of the research is on the effects of academic performance, realistic role perceptions,

and individual differences on career choices and aspirations under conditions of voluntary or nonvoluntary career shifts. These data are collected but not yet analyzed at this time.

D. Individual Differences in Interaction with Performance Feedback. Taylor (1978) investigated the effects of

performance feedback on individuals who differed in their self-esteem as it affected their motivation, performance attributions, and satisfaction on the task. The review by Ilgen, et al., (1977) clearly indicated that individual differences do affect the way in which feedback is received and the way in which one responds. Furthermore, self-esteem was shown to be one of the most important personality dimensions related to the way in which people respond to feedback.

Taylor (1978) presented either positive or negative feedback to individuals high or low on self-esteem in order to address the motivational and cognitive effects of these two conditions (feedback and self-esteem). Two competing predictions were pitted against each other. The first, the self-enhancement position (Dipboye, 1977) argues that individuals will desire to continue to get positive feedback rather than negative feedback regardless of their self-esteem. The position recognizes that high self-esteem individuals may be more receptive to positive feedback than those with low self-esteem, and those with low self-esteem may be less dissatisfied with low performance feedback than high self-esteem persons, but all will prefer the ~~high~~ over ~~low~~. Consis-

positive negative
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tency theory (Korman, 1976) argues that low self-esteem people may even prefer feedback that indicates low performance than that which indicates high. The data clearly support a self-enhancement view more than a consistency one. They are discussed in light of their implications for task motivation and performance. (See Taylor (1978) for detailed discussion of the research).

CONCLUSIONS

In our opinion four major products resulted from this research effort. First the review and the conceptual model that resulted from it provide a framework with an empirical base from which to view feedback. In the past much too much lip service was paid to the need for feedback but surprisingly little was known about the impact of feedback on the individual. The conceptual framework presented in Figure 1 should be useful for guiding further research on feedback and for generating hypotheses about the possible effects of various types of feedback in organizational settings.

Second, the feedback instrument provides a way in which to assess feedback environments. Although the instrument needs to be refined as is discussed in Technical Report Number 2, 1978, it does provide a reasonable start for describing the nature of feedback in organizations. More work is needed, however, if it is to improve its utility for assessing feedback to individuals.

A third contribution of the research is its exploration of the effects of giving feedback on the supervisor. It is commonly accepted that supervisors are one of the most valuable sources of feedback in organizations. However, in spite of their importance, they tend to be very poor sources. The work of Fisher (1978a,

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1978b) began to explore those factors that influence the way in which supervisors give feedback. This provided a start in an area where much future work is needed if prescriptive guidelines are to be offered to supervisors to improve their ability to provide useful feedback for their subordinates.

Finally, the research explored some of the specific effects of feedback in particular and information about appropriate role behaviors in general. These findings offer but a few of the many specific issues related to work role perceptions and perceptions of the quality of the individual's own behavior in work settings that need to be addressed. The review of feedback suggested several more critical issues affecting the perceptions of what must be done on a job. Future research needs to continue to clarify these relationships in order to provide more knowledge about ways to aid individuals' desire to perform well in work roles and their knowledge about what are and are not the appropriate behaviors for effective performance. In order to accomplish this it is necessary that they receive and perceive their own behavior accurately. This requires a better understanding of the way they deal with feedback. This project provides some information for this. Future research will continue to explore these issues.

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A P P E N D I X

PUBLICATIONS SUPPORTED BY THE GRANT

Publications and Papers Resulting
from Research Supported by the Grant

Listed below are 24 articles, papers, technical reports, associated with research on the grant.

I. Articles accepted or under review as of October, 1978

1. Ilgen, D. R., Fisher, C. D., and Taylor, M. S., Motivational consequences of individual feedback on behavior in organizations. Journal of Applied Psychology in press when minor revisions are accepted.
2. Fisher, C. D., Ilgen, D. R. and Hoyer, W. D., Source credibility, information favorability, and job offer acceptance. Academy of Management Journal, in press.
3. Dugoni, B. L., and Ilgen, D. R., Realistic job previews and the adjustment of new employees. Journal of Applied Psychology, under review.
4. Ilgen, D. R., Campbell, D. J., Peters, L. H., and Dugoni, B. L., Individual and situational contributions to work task perceptions. Organizational Behavior and Human Performance, under review (also supported in part by previous grant.)
5. Peters, L. H., Cognitive models of motivation, expectancy theory and effort: An analysis and empirical test. Organizational Behavior and Human Performance, 1977, 20, 129-148 (supported by previous grant but not listed with its final report).
6. Campbell, D. J., The effect of psychological closeness and type of exchange situation on perceived inequity. Academy of Management Journal, 1978, 21, 307-312. (supported by previous grant but not listed with its final report)

II. Papers and/or Presentations

1. Ilgen, D. R., Goal setting research and practice: Where next? Paper presented as a discussant on a symposium entitled: "New directions in goal setting research." Presented at the 38th annual meeting of the Academy of Management, San Francisco, California, August 1978.

2. Ilgen, D. R., Performance Feedback: Its effects upon recipients. Paper presented as part of a symposium entitled: "Conceptions and implications of feedback." Presented at the 15th annual meeting of the Eastern Academy of Management, New York City, May, 1978.
3. Ilgen, D. R., Individual feedback in organizations: A process oriented view. Colloquium presented at the University of Maryland, College Park, MD, November, 1977.
4. Ilgen, D. R., Nobody listens to what I say: Why Feedback to subordinates often fails. Colloquium presented at the University of Texas at Dallas, October, 1978.
5. Ilgen, D. R., Feedback: A process model from the recipient's perspective. Presented at a conference on feedback organized by the Center for Creative Leadership, Greensboro, North Carolina, and held in Washington, D. C., November, 1977.
6. Ilgen, D. R., Campbell, D. J., Peters, L. H., and Dugoni, B. L., Individual differences in perceptions of exercise requirements: Implications for assessment center data used for career development. Paper presented at the 5th International Congress of Assessment Center Method, Washington, D. C., May, 1977.
7. Ilgen, D. R., and Dugoni, B. L., Psychological implications of realistic job previews on the adjustment of new organizational members. Paper presented as part of a symposium at the 37th annual meeting of the Academy of Management, Orlando, Florida, August, 1977.
8. Taylor, M. S., A test of Korman's Hypothesis: The effects of chronic self-esteem and performance feedback on task motivation, performance attributions, and satisfaction. Paper presented at the 50th annual meeting of the Midwestern Psychological Association, May, 1978.

III. Technical Reports

1. Ilgen, D. R., Fisher, C. D., and Taylor, M. S., Performance feedback: A review of its psychological and behavioral effects. Technical Report No. 1, Department of Psychological Sciences, Purdue University, W. Lafayette, Indiana, February, 1977.

2. Ilgen, D. R., Matte, W. E., Dugoni, B. L., Fisher, C. D., and Taylor, M. S., The assessment of performance feedback in organizational settings. Technical Report No. 2, Department of Psychological Sciences, Purdue University, W. Lafayette, Indiana, September, 1978.
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IV. Thesis and Dissertations

1. Dugoni, B. L., - The effects of realistic job previews on individual adjustment to a new job. Unpublished masters thesis, Purdue University, W. Lafayette, Indiana, 1978.
2. Fisher, C. D. - Factors affecting the willingness of superiors to give timely and accurate feedback to their subordinates. Unpublished dissertation, Purdue University, W. Lafayette, Indiana, 1978a.
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